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Filed 3/22/2007
Attorney docket no. DE920030074US1

REMARKS

Prior art claim rejections

Claims 12-21 and 24-25 have been rejected under 35 USC 102(e) as being anticipated by Baumgart (2005/0013040) or Albrecht (6,762,909). Claims 22-23 and 26 have been rejected under 35 USC 103(a) as being unpatentable over Baumgart or Albrecht. Claims 12 and 25 are independent claims, and claims 13-24 and 26 depend from these independent claims.

In rejecting the claims, the Examiner has identifier the magnetoresistive (MR) read head of Baumgart and Albrecht as the magnetic resistive sensor of the claimed invention, and the magnetic recording disk of Baumgart and Albrecht as the magnetic surface of the invention. Applicant notes that in this respect, both Baumgart and Albrecht simply disclose a hard disk drive, in which there is a read head positioned over a magnetic disk to read data from the disk as the disk is moved in relation to the read head (see, e.g., col. 1, ll. 8-10 of Albrecht, and para. [0001] of Baumgart).

In reviewing the previously presented claims, Applicant acknowledges that at least the independent claims were unduly broad, and read upon a standard hard disk drive. Applicant apologizes for this oversight. The intention of the present patent application was to claim a high-resolution magnetic *encoder*, which as the Examiner can appreciate is a device that permits one to quantitatively detect movement. Applicant has amended the independent claims so that they no longer read on a standard hard disk drive as disclosed in Baumgart and Albrecht.

(Parenthetically, Applicant notes that the preambles to the claims recite a "high-resolution magnetic encoder system," which the hard disk drive of Baumgart and Albrecht is definitely not. Applicant has decided, however, to add limitations to the body of the claims, instead of simply arguing the preamble, to move this patent application towards allowance, and as an offer of good faith to the Examiner to do likewise, so that a costly and time-consuming appeal does not have to be filed.)

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In particular, the magnetic surface of the invention now has "a latent magnetic pattern corresponding to an encoder servo pattern" (see, e.g., previously filed substitute specification, p. 6, ll. 18-20). Likewise, the magnetic resistive sensor of the invention now is "to detect the latent magnetic pattern to read out the latent magnetic pattern to quantitatively detect movement of the magnetic resistive sensor and the magnetic surface relative to one another" (see at least, e.g., p. 6, ll. 14-15; p. 3, ll. 13-14; p. 1, l. 7).[1]

Thus, the claimed invention is now precisely directed to an *encoder*, in which there is a magnetic surface having a latent magnetic pattern corresponding to an encoder servo pattern, and a magnetic resistive sensor that is to detect this latent magnetic pattern to quantitatively detect movement of the sensor and the magnetic surface relative to one another. Applicant notes that a standard hard disk drive, such as that disclosed in Baumgart and Albrecht, does not read on the invention as amended. In particular, the magnetic surface of a hard disk drive does not have a latent magnetic pattern corresponding to an encoder servo pattern, and the read/write head of a hard disk drive is not used to quantitatively detect movement of the read/write head and this magnetic surface relative to one another. Indeed, the patent application notes the disadvantages

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[1] While Applicant believes that substantially explicit support for these amendments is found in the substitute specification, Applicant would be remiss to not also note that the MPEP states that "[t]he subject matter of [a] claim need not be described literally (i.e., using the same terms or *in haec verba*) in order for the disclosure to satisfy the description requirement." (MPEP sec. 2163.02) The MPEP further notes that

> By disclosing in a patent application a device that inherently performs a function or has a property, operates according to a theory or has an advantage, a patent application necessarily discloses that function, theory or advantage, even though it says nothing *explicit* concerning it. The application may later be amended to recite the function, theory or advantage without introducing prohibited new matter.

(MPEP sec. 2163.07(a) (citations omitted) (emphasis added))

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associated with existing encoders for hard disk drives (see previously filed substitute specification, p. 3, ll. 1-8).

For these reasons, Applicant respectfully submits that the claimed invention as amended is *prima facie* patentable over the prior art of record, at least insofar as the prior art of record is directed to a hard disk drive having a read/write head and a magnetic disk, which are not used to quantitatively detect movement relative to one another as in the invention. Applicant is amenable to adding other limitations to the claims so that they are not directed to the prior art, however, and in this respect encourages the Examiner to contact Applicant's representative, Mike Dryja, at the phone number below, with any such proposals that would elicit patentability over any prior art located by the Examiner.

Double patenting rejections

Various claims have been rejected on the ground of nonstatutory obviousness-type double patenting over various existing patents. Applicant is amenable to filing terminal disclaimers as to the present patent application in relation to these existing patents, but believes that filing the disclaimers at this point in time is premature. This is because Applicant has amended the claims, as discussed above, and is not convinced that obviousness-type double patenting still exists in relation to the patents cited by the Examiner. If the Examiner believes otherwise, however, he is encouraged to explain his reasoning as to why the amended claims are still subject to the double patenting rejections, and Applicant will likely file appropriate terminal disclaimers.

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Respectfully Submitted,

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